From: **Adam Molnar/ESC/R3/USEPA/US**
Sent: 1/10/2012 7:47:36 AM

To: Cynthia Caporale/ESC/R3/USEPA/US@EPA
CC: Eric Graybill/ESC/R3/USEPA/US@EPA; kevin Poff/ESC/R3/USEPA/US@EPA; Stevie Wilding/ESC/R3/USEPA/US; Sue Warner/ESC/R3/USEPA/US@EPA; Jennifer Gundersen/ESC/R3/USEPA/US@EPA
Subject: Re: Dimock GW Site - Summary of Lab Efforts

Tried running Ethylene Glycol and Methoxy Ethanol on the dual column GC-FID.

Ethylene Glycol - had an amazing response for a 1ppm standard on both columns. I am confident that I can get a quant limit of 100ppb for this compound. 10ppb might even be possible. Plus it is a straight injection of sample with no extraction required and a 4 minute run time. Fast, sensitive, and easy.

Methoxy Ethanol - I got a response at 10ppm on one of the two columns. Quant limit will be 10ppm. The current setup will not allow me to change columns so right now we have a situation where we can see it but there is no confirmation column. I could experiment with installing some of the columns lying around the lab. I would have to place the confirmation column on a different inlet and then rerun any positive detects separately on that inlet in that column for confirmation. It's possible that I could make this work at 10ppm but I don't have the time to put into it right now. Hopefully, someone else will have better luck with it.

I'm a little unsure of what kind of QC steps need to be taken before I could analyze for ethylene glycol. Currently there is no SOP, DOC, MDL, PT results. What would be required to actually analyze for this analyte? I could use the Alcohols SOP as a guide but even with the Alcohols I have not run a PT yet.

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Date: 01/09/2012 03:39 PM
Subject: Re: Dimock GW Site - Summary of Lab Efforts

Great info, thanks

On less great news, so far my attempts to tune for 2-methoxyethanol have not been successful. I believe it's just too small and too volatile to make it through the desolvation chamber. I've got one other thing to try but I'm not very hopeful

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Date: 01/09/2012 11:54 AM
Subject: Re: Dimock GW Site - Summary of Lab Efforts

I was able to see the TestAmerica data for one sample (TestAmerica was contracted by Cabot to analyze well water). The glycol analysis was done by 8015B and the Reporting Limit was 10ppm.

Ethylene glycol	1.6 mg/L reported for one sample (qualified J as below RL)
propylene glycol	
triethylene glycol	
2,2-oxybis	1.2 mg/L
2-methoxyethanol	1.3 mg/L
2-ethoxyethanol	

Does this information help? The data is being closely held but if you need more info then I'll see if we can look at more results. The MDL was 0.76mg/L.

Please do not forward this to anyone..

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Date: 01/09/2012 11:37 AM
Subject: Re: Dimock GW Site - Summay of Lab Efforts

Not sure who else is interested at this point but I'm breaking open the vial of 2-methoxyethanol as soon as my boiled DI H2O cools. I'm taking 0.1ml into 100ml DI for tuning my mass spec and will have about 0.9ml of the neat standard left. It will be in a vial in my stds fridge in my lab.
If you want any of the 966ppm solution instead of the neat std, let me know. ***If*** I can get the LC/MS/MS to tune for a compound with a MW of 76, I'll make cal stds in DI H2O from there.

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Date: 01/09/2012 08:50 AM
Subject: Re: Dimock GW Site - Summay of Lab Efforts

For 2-Methoxyethanol and Ethylene glycol by EPA 8015D - Assuming I can see these on the FID there is no way I would be able to see lower than 1ppm. I think this is a no go for me if we need ppb range results.

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Date: 01/06/2012 11:13 AM
Subject: Dimock GW Site - Summay of Lab Efforts

I prepared a summary sheet for our efforts in supporting the Dimock GW Site. Would you review and make sure I captured the efforts correctly?

I think we could use this when I send out a note to the branch summarizing status??? What do you think?